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U.S. Department of the Interior • U.S. Geological Survey

# MINERAL INDUSTRY SURVEYS

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Gordon P. Eaton, Director

Reston, VA 20192

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For information, contact:

Joyce Ober, Commodity Specialist

Telephone: (703) 648-7717, Fax: (703) 648-7722

E-mail: [jober@usgs.gov](mailto:jober@usgs.gov)

MINES-DATA: (703) 648-7799

MINES FaxBack: (703) 648-4999

Internet: <http://minerals.er.usgs.gov/minerals>

## SULFUR IN OCTOBER 1996

During the month, production of combined Frasch and recovered elemental sulfur was 801,000 metric tons, according to the U.S. Geological Survey. October production was 5% lower than that of September 1996, and 6% lower than that of October 1995. Shipments of these combined products were 8% lower than those of September 1996.

Import and export data for October 1996 were not available

at the time of publication. Import/export data and apparent consumption for October 1996 will be published in the November 1996 Sulfur Mineral Industry Surveys. Imports of recovered sulfur for September 1996 were 135,000 tons. Exports of sulfur, for the same period, were 36,000 tons. Imports of sulfuric acid for September 1996 were 195,000 tons; exports were 12,000 tons.

TABLE 1  
SALIENT SULFUR STATISTICS 1/

(Thousand metric tons)

Period	Production				Shipments, all sources
	Frasch 2/	Petroleum 3/	Natural gas	Total	
1995	759	5,020	4,580	10,400	10,700
Jan.-Oct. 1995	759	4,160	3,650	8,580	8,970
1995:					
October	W	431	420 4/	851	842
November	W	434	459 4/	893	905
December	W	443	460 4/	903	917
1996:					
January	W	433	449 4/	882	884
February	W	406	419 4/	825	815
March	W	430	424 4/	854	835
April	W	449	423 4/	872	898
May	W	467	422 4/	889	863
June	W	416	397 4/	813	763
July	W	433	427 4/	860	832
August	W	468	432 4/	900	917
September	W	440	401 p/ 4/	841 p/	872 p/
October	W	466 p/	335 p/ 4/	801 p/	805 p/
Year to date	W	4,410 p/	4,130 p/	8,540 p/	8,480 p/

p/ Preliminary. W Withheld to avoid disclosing company proprietary data; included with "Natural gas."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Estimates based on information available from the Texas Comptroller of Public Account and company quarterly reports.

3/ Includes a small quantity from coking operations.

4/ Includes data from Frasch producers.

TABLE 2  
U.S. IMPORTS OF SULFUR 1/

(Thousand metric tons and thousand dollars)

Period	Canada		Mexico		Total, all countries 2/	
	Quantity	Value 3/	Quantity	Value 3/	Quantity	Value 3/
1995	1,670	65,000	502	28,900	2,200	99,700
Jan.-Sept. 1995	1,250	49,200	383	22,400	1,640	75,800
1995:						
September	136	5,470	41	2,430	177	7,970
October	158	5,910	41	2,120	199	9,020
November	151	5,250	38	1,970	189	7,510
December	116	4,020	40	1,800	174	6,870
1996:						
January	96	4,780	18	781	135	7,070
February	96	4,140	37	1,910	150	7,080
March	93	2,480	37	1,720	130	4,680
April	82	2,220	37	1,990	119	4,660
May	119	2,400	37	1,280	171	5,520
June	85	1,500	36	1,760	122	3,780
July	111	4,610	36	1,680	148	6,700
August	80	1,590	57	2,510	157	4,910
September	59	1,390	58	2,470	135	4,410
Year to date	821	25,100	353	16,100	1,270	48,800

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ May include other countries not listed.

3/ Declared customs valuation.

Source: Bureau of the Census.

TABLE 3  
U.S. IMPORTS OF SULFURIC ACID 1/

(Thousand metric tons and thousand dollars)

Period	Canada			Europe			Total 2/		
	Quantity	Sulfur content	Value 3/	Quantity	Sulfur content	Value 3/	Quantity	Sulfur content	Value 3/
1995	1,660	544	61,500	95	30	710	1,900	619	66,500
Jan.-Sept. 1995 4/	1,270	416	47,500	85	27	592	1,450	474	50,800
1995:									
September	147	48	5,350	10	3	111	162	53	6,250
October	147	48	5,290	(5/)	(5/)	2	185	60	5,790
November	136	45	4,900	10	3	116	147	48	5,060
December	133	44	4,260	--	--	--	139	45	5,280
1996:									
January	112	37	3,420	9	3	113	144	47	4,120
February	110	36	2,700	11	4	232	188	62	3,550
March	144	47	3,900	35	12	466	199	65	4,510
April	126	41	3,620	40	13	421	202	66	4,350
May	147	48	3,990	20	7	223	192	63	4,510
June	113	37	2,670	21	7	160	140	46	3,460
July	106	35	2,770	21	7	86	132	43	3,210
August	127	41	3,260	11	3	176	138	45	3,620
September	156	51	3,760	19	6	70	195	64	4,160
Year to date	1,140	373	30,100	187	62	1,950	1,530	501	35,400

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ May include other countries not listed.

3/ Declared customs valuation.

4/ May include revisions to prior months.

5/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 4  
U.S. EXPORTS OF SULFUR AND SULFURIC ACID 1/

(Thousand metric tons and thousand dollars)

Period	Sulfur		Sulfuric Acid		
	Quantity	Value 2/	Quantity	Sulfur content	Value 2/
1995	905	66,200	171	56	12,800
Jan.-Sept. 1995	691	54,300	128	41	9,450
1995:					
September	10	1,580	16	5	1,110
October	104	7,060	17	6	1,530
November	51	3,690	11	4	1,050
December	99	5,340	6	2	774
1996:					
January	102	7,600	13	4	1,370
February	82	7,080	6	2	805
March	66	1,590	10	3	900
April	120	6,720	7	2	938
May	15	2,330	9	3	1,080
June	124	4,990	8	3	785
July	62	3,160	9	3	978
August	139	7,280	12	4	1,090
September	36	1,910	12	4	1,080
Year to date	746	42,700	86	28	9,030

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Declared f.a.s. (free alongside ship) valuation.

TABLE 5  
U.S. CONSUMPTION OF SULFUR 1/

(Thousand metric tons)

Period	Domestic sources 2/	Imports	Consumption
1995	9,830	2,200	12,000
Jan.-Sept. 1995	7,400	1,640	9,070
1995:			
September	841	177	1,020
October	738	199	937
November	854	189	1,040
December	818	174	992
1996:			
January	780	135	915
February	733	150	883
March	769	130	899
April	778	119	897
May	848	171	1,020
June	639	122	761
July	770	148	918
August	778	157	935
September	836	135	971
Year to date	6,930	1,270	8,200

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Calculated as shipments minus exports.

TABLE 6  
RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES,  
BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT 1/

(Thousand metric tons)

District and source	October 1996 p/		September 1996 p/		Year to date 1996 p/		Year to date 1995 2/	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	21	20	21	20	182	190	201	200
Natural gas	4	5	4	4	42	43	42	42
Total	25	25	25	24	224	233	243	243
PAD 2:								
Petroleum and coke	77	78	81	79	758	758	749	744
Natural gas	4	4	4	5	42	42	50	50
Total	82	82	85	84	800	800	799	794
PAD 3: 3/								
Petroleum and coke	273	257	245	245	2,580	2,570	2,380	W
Natural gas 4/	234	245	305	330	3,180	3,150	2,820	W
Total	507	502 5/	550	575 5/	5,770	5,720 5/	5,200	5,580 5/
PAD 4 and 5: 6/								
Petroleum and coke	96	101	93	90	885	887	850	859
Natural gas	93	94	87	99	861	847	827	829
California	74	79	73	70	692	693	663	671
Total	189	195	180	189	1,750	1,730	2,340	2,360
Grand total	801	805	841	872	8,540	8,480	8,580	8,970

p/ Preliminary. W Withheld to avoid disclosing company proprietary data.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ May include revisions to prior months.

3/ Includes Puerto Rico and the U.S. Virgin Islands.

4/ Frasch production is included in the natural gas production to avoid disclosing company proprietary data.

5/ Includes data from Frasch producers.

6/ Quantities produced and shipped in California included in petroleum and natural gas. California total shown for information purposes only.

TABLE 7  
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS 1/

(Million metric tons per year [annualized basis] and dollars per metric ton for period shown)

	1996			1995
	October	September	Year to date	Total
Production	9.46 p/	10.30	10.20 p/	10.30
Shipments	9.50 p/	10.60	10.20 p/	10.40
Exports of sulfur	NA	0.44	1.00	0.87
Imports of sulfur:				
Canada	NA	0.72	1.10	1.65
Mexico	NA	0.71	0.47	0.51
Total	NA	1.65	1.70	2.16
Exports of H <sub>2</sub> SO <sub>4</sub>	NA	0.15	0.12	0.18
Imports of H <sub>2</sub> SO <sub>4</sub> :				
Canada	NA	1.90	1.52	1.66
Europe	NA	0.23	0.25	0.11
Total 2/	NA	2.38	2.04	1.91
Consumption: 3/				
Domestic sources	NA	10.20	9.26	9.56
Imports	NA	1.65	1.70	2.16
Total	NA	11.80	11.00	11.70
Sulfur export values 4/	NA	\$53	\$57	\$77
Sulfur import values: 4/				
Canada	NA	\$24	\$31	\$40
Mexico	NA	\$43	\$46	\$60
Average	NA	\$33	\$38	\$45
H <sub>2</sub> SO <sub>4</sub> export values 4/	NA	\$90	\$105	\$69
H <sub>2</sub> SO <sub>4</sub> import values: 4/				
Canada	NA	\$24	\$26	\$38
Europe	NA	\$69	\$10	\$7
Average	NA	\$21	\$23	\$37

p/ Preliminary. NA Not available.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes other countries not listed.

3/ Because trade data was not available, October consumption was not determined.

4/ Average value per ton for most recent data available.